

State of New Jersey DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF HAZARDOUS WASTE MANAGEMENT

John J. Trela, Ph.D., Acting Director 401 East State St. CN 028 Trenton, N.J. 08625 609 - 633 - 1408

NJD002/4/190

The Middlesex County Planning Board Attention: William Kruse 40 Livingston Avenue New Brunswick, NJ 08901

0 4 MAR 1987

Dear Mr. William Kruse:

Re: CPS Chemicals Company, Part B Permit Application

Enclosed you will find CPS's response to the first technical notice of deficiency issued to CPS on November 6, 1986.

Please attach this response to your copies of Part A and Part B of CPS's application for a permit to operate a hazardous waste facility. This will provide an opportunity to the affected parties for input prior to any decision on our part.

Should you have any questions, please contact George Mejia of my staff at (609) 292-9880.

Very truly yours,

Emost & Kuhlwein fr.

Ernest J. Kuhlwein Jr., Acting Chief Bureau of Hazardous Waste Engineering

EP35/vb
Enclosure
Lori Amato

507583

CPS CHEMICAL COMPANY, INC.

P.O. BOX 162, OLD BRIDGE. NEW JERSEY 08857/201-727-3100 • Telex 844532 • CPSOLDB

January 12, 1987

Mr. Ernest J. Kuhlwein, Jr., Acting Chief Bureau of Hazardous Waste Engineering State of New Jersey Department of Environmental Protection Division of Hazardous Waste Management CN 028 Trenton, NJ 08625

Subject: TND, File No. 85-32H,

EPA ID NJD002141190

Dear Mr. Kuhlwein:

The response to your Technical Notice of Deficiency dated November 6, 1986 is as follows:

I. Revised Part A and B Permit Application

- (a) The tank storage capacity has been revised to include R-3. In addition, we have made other revisions to the tank storage capacity which will be noted in detail in the text and in the Part A revisions. R-3 has been added to the tank inspection schedule. A drawing of R-3 including shell thickness, material of construction and piping is attached.
- (b) The AGE residue is a result of a proprietary material manufactured by CPS. The residue is a hazardous waste because it has fuel value and is stored and processed as a waste fuel. The TEG residue has been judged by the NUDEP to be non-hazardous. It is sold as a waste fuel, but has a flash point above 140°F and thus could not be included under sub-category DOO1. In addition the TEG Recovery is being discontinued, and this material will no longer be stored at the CPS site. There is no supplier for AGE, as explained above, as it is a commercial product manufactured by CPS.

II. Related State Permits

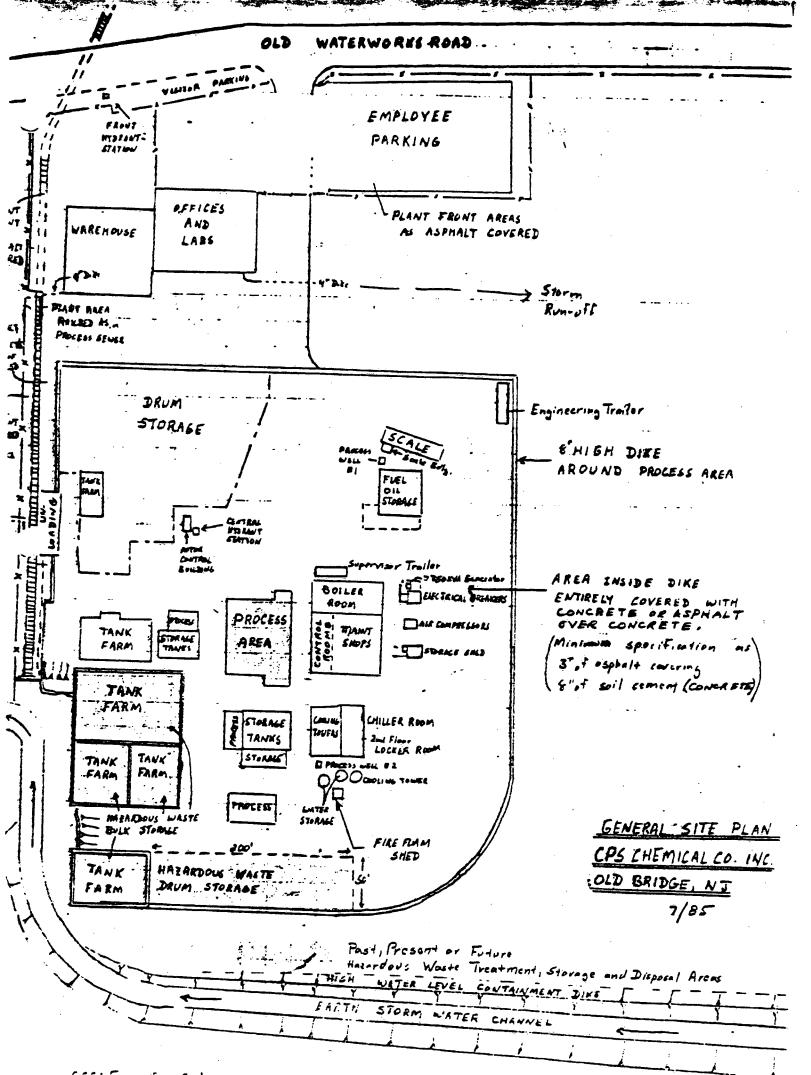
- (a) The NUPDES/SIU permit application has been completed and is under review by the appropriate NUDEP department. We are waiting for continuance of this review by the subject department.
- (b) The tanks that contain air permits at the present time were included in the original Part A. We are updating all other tanks that store VOS materials and that require listing under the current regulations. Specifically, permits already exist for tanks 39 and for reactor R-3. Tanks 13, 14, 30 and 32 do not require air permits. Permits have been requested for tanks 18 and 311 using the appropriate NUDEP application forms. The details appear in the attached table.

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IX. DESCRIPTION OF HA			·		
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B. HAZARDOUS WASTES FRO	DM SPECIFIC SOUR ur installation handle	ICES. Enter the four—cs. Use additional sheet	digit number from 40 CF if necessary.	R Part 261.32 for each	listed hazardous waste from
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D. LISTED INFECTIOUS WAST hospitals, medical and research	ES. Enter the four- haboratories your in	digit number from 40 (nstallation handles. Use	CFR Part 261.34 for eac additional sheets if nec	h listed hazardous wasti essary.	e from hospitals, veterinary
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SIGNATURE /			CIAL TITLE (ISPE OF P		DATE SIGNED
-nlm (1. //a	\sim	John A.	Rowe, Jr. Ope	rations Manage	1/12/87

EFA Form 8700-12 (6-80) REVERSE

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(specify)	7 (specify)
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CPS CHEMICAL CO INC	Tien VIII-Auto
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LMAD	TRANSPORTER
Attach to this application a topographic map of the area extending to the outline of the facility, the location of each of its existing and protectment, storage, or disposal facilities, and each well where is income.	It least one mile beyond property boundaries. The map must show
reatment, storage, or disposal facilities, and rach well where it inject	s fluids underground. Include all stances rivers and other entered
IL NATURE OF BUSINESS (provide a brief description assets and and an armed and a second a second and a second a second and	
CPS Chemical Company is a manufacturer of organe used to treat potable water and sewerage	ganic specialty chemicals. These chemicals
are used to treat potable water and sewerage water such as is associated with pulp and pap	for the public and to treat industrial per, mining and petroleum operations
In addition to this principal invaluance :	
In addition to this principal involvement in chemicals, CPS also receives mixtures of pure individual pure components and returned to the	compounds which are compounds which are
individual pure components and returned to the enhances the value of the original mixture and	e customer. This purification process
enhances the value of the original mixture an otherwise be discarded.	d preserves valuable materials which might
III. CERTIFICATION (see Instructions)	
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certify under penalty of law that I have personally examined and am traciments and that, based on my inquiry of those persons immedi opplication, I believe that the information is true, accurate and complete	lemilies with the information submitted in this explication and eli-
aise information, including the possibility of fine and imprenoment	ets. I am eware that there are significant penalties for submitting
E & OFFICIAL TITLE (Type or print) B. SIGNATUR	
John A. Rowe, Jr., V.P. Operations	1 1 Carra C 1 1/12/12
DAMMENTS FOR OFFICIAL USE ONLY	act from 1/12/31
Form 3510-1 (6-80) REVERSE	



et er type in the unsheded breas energy. U.S. ENVIRONMENTAL PROTECTION ASSNEY HAZARDOUS WASTE PERMIT APPLICATION I. EPA LD. NUMBE (This information is required under Section 3005 of RCRA.) FOR OFFICIAL USE ONLY ICATION DATE RECEIVED COMMENTS ROVED 10000 II. FIRST OR REVISED APPLICATION Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above. A. FIRST APPLICATION (piece an "X" below and provide the appropriate date) t EXISTING FACILITY (See instructions for definition of "existing" facility.

Complete item below.) 2.NEW FACILITY (Complete item beic_ FOR NEW FACILITIES.
PROVIDE THE DATE
(yr., mo., & dow OPERATION BEGAN OR IS
EXPECTED TO BEGIN FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mc., & day)
OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED
(use the baxes to the left) 6 1 2 REVISED APPLICATION (place an "X" below and complete Item I above) X 1. FACILITY HAS INTERIM STATUS X 2. FACILITY HAS A RCRA PERMIT III. PROCESSES - CODES AND DESIGN CAPACITIES **公司以下的公司以及**以及公司的公司 7. C. A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code/s/ in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the form (/tem ///-C). B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process. 1. AMOUNT - Enter the amount, 2. UNIT OF MEASURE — For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used. PRO-APPROPRIATE UNITS OF PRO. APPROPRIATE UNITS OF CESS MEASURE FOR PROCESS CESS MEASURE FOR PROCESS **PROCESS** CODE DESIGN CAPACITY **PROCESS** CODE DESIGN CAPACITY Storage: Treatment: CONTAINER (barrel, drum, etc.) GALLONS OR LITERS GALLONS OR LITERS CUBIC YARDS OR CUBIC METERS 801 TANK GALLONS PER DAY OR LITERS PER DAY GALLONS PER DAY OR TOI 502 WASTE PILE SURFACE IMPOUNDMENT T02 LITERS PER DAY TONS PER HOUR OR METRIC TONS PER HOUR: SURFACE IMPOUNDMENT 504 GALLONS OR LITERS INCINERATOR TOS **336**1: GALLONS PER HOUR OR LITERS PER HOUR ECTION WELL GALLONS OR LITERS ACRE-PEET (the volume that would cover one acre to a depth of one foot) OR ANDFILL OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or inciner-GALLONS PER DAY OR T04 LITERS PER DAY HECTARE-METER ACRES OR HECTARES GALLONS PER DAY OR AND APPLICATION 041 ators. Describe the processes in the space provided; Item III-C.) OCEAN DISPOSAL LITERS PER DAY GALLONS OR LITERS SURFACE IMPOUNDMENT UNIT OF UNIT OF UNIT OF MEASURE MEASURE MEASURE UNIT OF MEASURE CODE UNIT OF MEASURE CODE UNIT OF MEASURE CODE LITERS PER DAY TONS PER HOUR ACRES CUBIC METERS GALLONS PER HOUR . . . HECTARES GALLONS PER DAY EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour. C DUP B. PROCESS DESIGN CAPACITY BER B. PROCESS DESIGN CAPACITY A. PRO A. PRO CESS FÖR 2. UNIT OF MEA-SURE CESS FOR 2. UNIT CODE OFFICIAL OFFICIAL 1. AMOUNT OF MEA SURE (enter (from list USF 1. AMOUNT (from list USE Z ONLY (enter above) ONLY above) code S 0 2 600 G 5 T 0 3 20 Ε 6 0 102,583 G 7 15 0 G 1 10,000 8 3 T 0 4 U 7,200 9 10 70 EPA Form 3510-3 (6-80)

III. PROCESSES (continued)

G. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "TOI"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

CPS Chemical uses one process vessel to purify mixtures that are received and stored at the Old Bridge facility. These valuable and essential mixtures are further enhanced in value by this processing and the purified individual components are returned to the customer. The capacity of the vessel for this purification operation is approximately 300 gallons per hour, depending on the nature of the mixture being processed.

IV. DESCRIPTION OF HAZARDOUS WASTES

- A EPA HAZARDOUS WASTE NUMBER Enter the four—digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four—digit number/s/ from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.
- B. ESTIMATED ANNUAL QUANTITY For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste/s/ that will be handled which possess that characteristic or contaminant.
- UNIT OF MEASURE For each quantity entered in column 8 enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

£.	ENGLISH UNIT OF MEASURE		 METRIC UNIT O	F MEASURE	CODE
	TONS.	P	 KILOGRAMS		K
			meinic jons.		

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

- 1. PROCESS CODES:
 - For listed hazardous waste: For each listed hazardous waste entered in column A select the code/s/ from the list of process codes contained in item ill to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous westes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

4. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual guarantity of the waste and describing all the processes to be used to treet, some and/or dispuse of the waste and describing all the processes to be used to treet, some and/or dispuse of the waste.

quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.

2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter included with above and make no other entries on that line.

3. Repest step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste."

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tenning and finishing operation. In addition, the facility will treat and dispose of three non—listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

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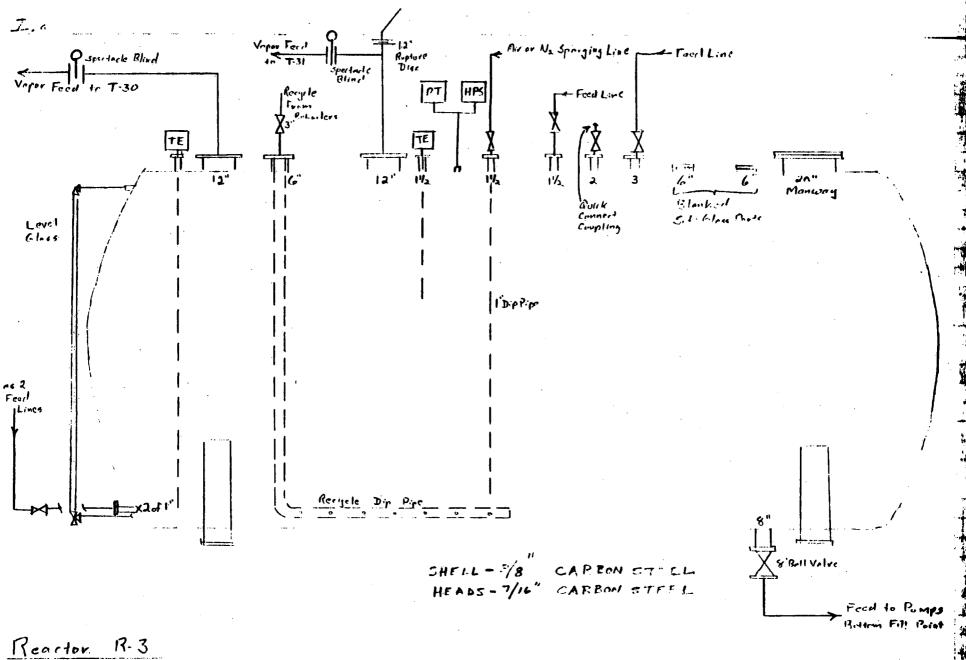
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GENERAL WASTE HANDLING EQUIPMENT DATA

STORAGE TANKS

No.	Capacity (gal.)	Dimensions Dia. x Ht.	Material of Construction	Wall Thickness	Тор	Bottom	Vert. or Horizontal
13	10,000	10'6" x 17'0"	Carbon Steel	1/4"	Coned	Flat	V
14	10,000	10'6" x 17'0"	Carbon Steel	1/4"	Coned	Flat	. V
18	10,000	10'6" x 17'0"	Carbon Steel	1/4"	Coned	Flat	V
30	5,000	8' x 13'10"	Carbon Steel	1/4"	Coned	Flat	V
32	5,000	8' x 13'10"	Carbon Steel	1/4"	Coned	Flat	. V
39	35,000	14' x 31'5"	Carbon Steel	1/4"	Coned	Flat	V
311	7,583	12'2" x 8'7"	Carbon Steel	1/4"	Flat	Coned*	V
R-3	20,000	12'0" x 23'0"	Carbon Steel	3/8"	Dished	Dished	Н

^{*} With bottom-side mounted agitator



5. Torck 1/2/87

II. (b)

1. Hazardous Waste Vessels Requiring Permits

VESSEL NR.	SERVICE	STACK NR.	PERMIT NR.	VP OF CONTENTS (psi)	CAPACITY (GALS)	OPERATIO NS
18	Mixed Monomer Heels	pending	pending	1.0779	10,000	Storage Ths
39	Alcohols, Methylene Chloride & Acetone	015	001861	VOS	35,000	Storage Ths
311	Mixed Monomer Heels	pending	pending	1.0779	7,583	Storage Tk:
R-3	Reaction Vessel	rev. appl.	pending	vary	19,500	Process Vess

2. <u>Hazardous Waste Vessels Not Requiring Permits</u>

VESSEL NR.	SERVICE	VP OF CONTENTS (psi)	CAPACITY (GALS.)	OPERATION
13	Crude AEFA	.0047 psi	10,000	Storage Tank
14	Crude AEEA	.0047 psi	10,000	Storage Tank
30	Glycidyl Ether Heels	.01 psi	.5 ,0 00	Storage Tank
32	Glycidyl Ether Heels	.01 psi	5,000	Storage Tank

III. Waste Analysis Plan

- (a) The list of physical and analytical properties has now been included in section II & III of the sampling and analytical procedures for each waste stream revised December 31, 1986.
- (b) The constituent compositions for each waste stream may be found in section III of the sampling and analytical procedures revised December 31, 1986.
- (c) The process tolerance limits for each waste stream may be found in section III of the sampling and analytical procedures revised December 31, 1986.
- (d) The parameters to be measured in each waste stream are indicated in the sample and analytical procedures revised December 31, 1986. The rationale to meet the limits of D001 must conform to Flash Point guidelines of 140°F max. For disposition as waste fuel the material must meet guidelines of BTU Value water content & chloride content. In addition the materials must contain no harmful substances.

The rationale for testing the ${\tt MeCl}_2$ and ${\tt AFFA}$ streams is to ensure that the material is within published specifications from the generator.

- (e) As stated in (d) above, the incoming waste streams are analyzed upon receipt and prior to unloading. All characterization parameters are tested and the results are compared to specifications. If the material does not meet specification it is not approved for unloading. This is addressed in section (V) (E) of each sampling and analytical procedure revised December 31, 1986.
- (f) The waste shipment screening procedure is addressed in section V of the sampling and analytical procedures for each waste stream revised December 31, 1986.
- (g) All Quality Assurance/Quality Control procedures are addressed in sampling and analytical procedures for each waste stream revised December 31, 1986.
- (h) A list of facility personnel involved in waste sampling and analysis is attached.
- (i) The Chain of Custody is enumerated in each sampling and analytical procedure for each waste stream revised December 31, 1986, especially in
- (j) CPS employs a full time Instrument Technician to perform corrective and preventive maintenance on all laboratory equipment and instrumentation since all of the equipment described in the sampling and analytical procedures is also used for other aspects and functions of the analytical department.
- (k) CFR 49 Part 173 states that each individual component in each stream is compatible with containers used to sample all the waste streams referred to

Facility Personnel involved in waste sampling and analysis

Name	Experience	Title
Harvey A. Weiss	B.A. Chemistry	Director, Laboratory Services
John Marshall	3 years college Engineering	Analytical Chemist
Dian Poalillo	B.A. Biology	Coordinator, Laboratory Services
William Pursley	Certified Electrical Technologist	Instrument Technician
Ronald Morris	B.S. Chemistry	Lead Lab Tech.
Katherine Benenati	B.A. Biology	Lead Lab Tech.
Edward Arruda	AAS Chemistry	Lead Lab Tech.
Debbie Bursch	4 years college Science emphasis	Lab Tech.
Anthony Daniele	5 years college	Lab Tech.
James Dowd	10 years Lab experience	Lab Tech.
Steve Marotta	B.A. Chemistry	Lab Tech.
Eleazar Ramos	B.S. Chemistry	Lab Tech.

- (1) The solvents that are to be used for cleanup of any waste spills will be analyzed according to the protocols for each waste stream constituent.
- (m) The compatibility of a waste to the material of construction of the vessel(s) used for storage of that waste has been determined by one or more of the following:
 - 1) Literature survey
 - 2) Corrosion coupon testing
 - 3) Comparable service
 - 4) Service history
 - 5) Generator recommendations

IV. Product Specification

Product specifications for each of the recycled waste streams are attached.

V. <u>Arrangements with Local Authorities</u>

Arrangements have been made with the local fire department, police and hospitals for inspection and familiarity with the facility. CPS has regular drills with the fire department involving not only the fire brigade organization and routine, but familiarity with all hazardous waste storage areas and hazardous chemical storage. The police department is in regular contact with our facility and has inspected the appropriate portions of our facility. Each local hospital has a copy of all hazardous materials that are stored at this site, and we have on our staff a resident nurse who is in contact with these facilities. In addition our company doctor has made a thorough inspection of our plant facilities and has MSDS sheets on all chemicals utilized at the facility.

- (a) Copies of the Contingency Plan and Emergency Procedures have been submitted to the appropriate departments.
- (b) We have documented inspections by local fire department personnel and we have documentation of our resident nurse's agenda, and the visit by the company doctor. The pertinent dates are shown below. We will initiate visits by hospital personnel as requested.

The Old Bridge Fire Department has conducted a number of training drills with the CPS Fire Brigade here at the Old Bridge facility the last of which was April 6, 1986. We will again be conducting training drills in the Spring of 1987 with the Old Bridge Fire Department.

The CPS facility has been inspected yearly by the Old Bridge Fire Prevention Bureau. The date of the last inspection was May 10, 1986. The Old Bridge Fire Prevention Bureau will again inspect the facility in the Spring of 1987.

CPS CHEMICAL CO., CUSTOMER SPECIFICATIONS FOR

(AEEA) Aminoethylethanolamine

	SPECIFICATIONS	LIMITS	TEST METHODS
*	Assay, wt% (by titration)	99.5 min.	FG-66-3B
	Refractive Index @ 25°C	1.4840	
	Distillation Range, 760 mm Hg, °C	242 - 246	PM-11-1
	Specific Gravity, 20/20°C	1.028 -1.033	PM-10-2
# +*	Color, APHA	100 max.	PM-13-1
# +*	Appearance f	Clear liquid, free from suspended matter.	PM-20-1
*	Assay, GC % Ethylene Diamine (EDA)	(1) Less than 100 ppm	GC
#+*	Water, wt % KF	0.5 max.	CM-35-1

() Internal

+ Must be checked on PRA

Specifications approval only.
Sales Department Approval for each individual customer not required for this product.

Sales	Approv	val/	/Date

Q/C Approval/Date

January JUL 1 6 1985

CUSTOMERS

^{*} Must be checked at time of manufacture or receipt

[#] Must be checked on Bulk Shipment (T/W or T/C sample)

⁽¹⁾ MIRANOL CHEMICAL CO. MONA

PRODUCT CODE	
DUCKHET FARE	
PRUUULI LUUE	

CPS CHEMICAL CO., CUSTOMER SPECIFICATIONS FOR

Recovered Methylene Chloride

	SPECIFICATIONS	LIMITS	TEST METHODS
#+*	Appearance	Clear, free insoluble matter.	PM-20-1
*	Odor	Similar to Standard	PM-12-1
#+*	Color, APHA	25 max.	PM-13-1
*	Specific Gravity, 20/20°C	1.31 - 1.324	PM-10-2
#+*	Water, wt% KF	0.2 max	CM-35-1
*	Identification	IR Scan	
*	Assay, wt% Methylene Chloride Acetone	96.0 min. 4.0 max.	GC
*	pH	Neutral to Litmus	

Specifications approval only. Sales Department Approval for each individual customer not required for this product.

Sales Approval/Date

Q/C Approval/Date

A Whis Jul 1 4 1985

⁽⁾ Internal

Must be checked at time of manufacture or receipt

Must be checked on PRA

Must be checked on Bulk Shipment (T/W or T/C sample)

Although no hospital personnel have inspected our Old Bridge facility, we have submitted a copy of our MSDS Sheets to both Old Bridge Regional Hospital and Perth Amboy General Hospital to familiarize each with the materials that are handled at CPS. CPS does retain the services of SHARE Occupational Health Program. Share is a mursing unit which maintains an office on-site at the CPS facility. The nurse is available for all employees for both work and non-work related injuries, as well as illness. The nurse is present at the facility twice a week for four (4) hours each day. The days and hours the nurse is present are Tuesday, 12:00 noon to 4:00 pm and Thursday, 8:00 am to 12:00 noon.

(c) There have been no written refusals by any group to coordinate activities in case of any emergency. Letters in writing from the fire department and hospital are enclosed.



President David Kramnich

Cheesequake Volunteer Fire Company

Founded 1926
HIGHWAY 34, CHEESEQUAKE
MATAWAN, NEW JERSEY 07747
Telephone (201) 727-2511

Chief Kenneth Trabalka

Secretary Richard F. Zipp

To whom it may concern:

1/8/87

This will verify that CPS Chemical has conducted a number of simulated fire drills and fire control exercises with the Cheesequake Fire Department. In addition CPS has furnished detailed drawings of its hazardous storage areas and has reviewed such areas with the appropriate Fire Department personnel.

In the event of a fire or related incident such as a chemical release or spill at CPS, the Fire Department would be notified immediately and would respond as dispatched. CPS personnel would attempt immediate containment and control measures until the arrival of the Cheesequake Fire Department who will assume all authority.

Very truly yours,

Kenneth Trabalka

Chief

Cheesequake Fire Dept.

BUREAU OF FIRE PREVENTION



TOWNSHIP OF OLD BRIDGE

MIDDLESEX COUNTY, N.J. FIRE DISTRICT II

Jan.8,1987

To whom it may concern:

This is to certify that C P S Chemical was inspected by this Bureau on May 10,1986. Our records indicate that all violations were abated by May 27,1986. This office also has a copy on file of the C P S Emergency Contigency Plan.

Yours in fire safety;
Bernard T. Cohan
Fire Official Dist 2

cc:File



530 New Brunswick Avenue, Perth Amboy, New Jersey 08861 Telephone: (201) 442-3700, extension 5269

September 23, 1985

Mr. Jack Rowe Operations Manager CPS Chemical Company, Inc. P.O. Box 162 Old Bridge, NJ 08857

Dear Mr. Rowe:

I have received an up-to-date listing of chemicals used at CPS Chemical, Old Waterworks Road, Old Bridge, New Jersey. Also included is first aid treatment, toxcity data and special precautions.

Sincerely,

(Ms.) Juanita Scarlett, RN

Manager, Emergency Room

Perth Amboy General Hospital

Perth Amboy, NJ 08861

JS/pl

VI. Inspection Schedules

- (a) Daily inspection of all control equipment in the tank farms is done. We are installing level controls on the appropriate tanks to make certain that there is no possibility of overfilling. A Schematic showing the details is attached.
- (b) All other monitoring equipment such as temperature, pressure and related equipment is inspected daily.
- (c) We have a schedule and procedure for assessing the condition of all tanks, and it does enable us to detect any cracks, leaks or any type of impending failure before it occurs. Periodic integrity testing is being carried out, and the results of the latest inspection schedule is attached in our answer to XV.
- (d) The concrete asphalt work surface is inspected daily in the tank farms and in the work area, and all tank farm seals are regularly upgraded as required.

VII. Flood Plain Boundaries

The response to this section was prepared by Wehran Engineering and the details are recorded below.

a. The maximum height of the 100-year flood plain at the upstream limit of the site was calculated as 26.1 MSL based upon backwater calculations for Prickett's Brook.

Prickett's Brook is separated from the facility by a berm at elevation 27.0 feet MSL which ties into high ground to the north.

The 100-year flood plain boundary indicated in the "Flood Insurance Study" for the Township of Old Bridge, prepared by the Federal Emergency Management Association, November 15, 1985 is approximate. Detailed calculations of flood height were not performed.

b. The berm design is presented in the "Additional Safeguards and Containment System" plans prepared by Wehran dated August 1978. The design is a soil berm with a 20 mil PVC core and erosion control mat and vegetation on the outside slopes.

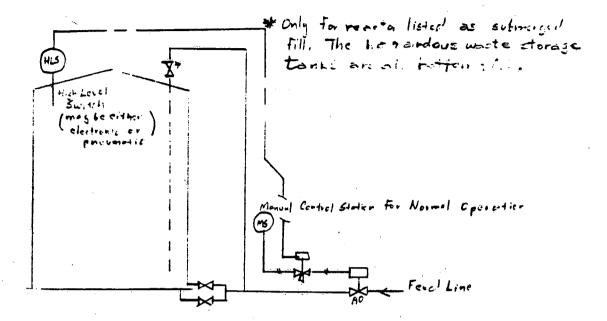
At the downstreamm end of the site where a berm was not required, a concrete lined channel was designed. The design of the drainage controls contains the 100-year flood from encroaching onto the facilities per se.

c. The 100-year flood plain limit would be along the berm as shown in the above-referenced plans.

VIII. <u>Liability Insurance</u>

We are in compliance with the requirements of the state according to the information we have received from Mrs. Baumunk.

VI(al) Overflow Control Scheme



Operation; Activation of the high level switch causes closure of the que actuated valve or the feed line shutting off feed to the vessel.

Tork Date

Vessel No.	Type
13	Bottom
14	Entton
18	Bettom
30	Botom
32	Bottom
39	Bettem
311	Between.
R-3	Submerged

IX. Night Operations

A description of the type of lighting,, total wattage, location and height of each lighting facility along with a sketch depicting these in the plant is attached.

X. Soil Sampling Plan

- (a) The equipment cleaning procedures have been modified in section Ia of the analytical procedures manual for soil samples to include Alconox detergent wash, tap water rinse, distilled water rinse, acetone rinse, air dry, distilled water rinse, air dry and aluminum foil wrap until used.
- (b) The rationale for selecting the proposed analytical parameters are addressed in Section II of the analytical procedures manual for soil samples revised December 31, 1986.

IX. Night Operations

Attached are details of lighting for:

Process Pad R-3 Area Tank Farm 1 - 2 Tank Farm 5

To include Statement of:

Type of lighting Wattage Height above work area

with layout and elevation sketches of lights

Reactor #3 Process Pad Lighting

6-th under

Ab cover

Thiso 31

This 30

This 30

This 31

This 3

Control Room

All Lights as shown are over-head lung as per

A, B. E and G ove 13' above pool level

C is 15' above pool level

D and F ove 6' above ord floor level and 24' above pool level

Types Hel Musey Vages In I wood was I Lishin Height Above Bd Level Location Type Lighting W. 11050 A Rendway SN of R-3 131 400 He√ E Receiver SW of R-3 13' HeV 400 15 C Road way He V 400 E of 4.3 24 D Overhead to R.3 play form I 200 24 E Overhead to R.3 Pumps 400 Hav 13' F Overhand to 2.2 Floor Not R3 200 HaV not included in total G Ground Leal Not The 311 131 (400)

Level of Illumination as Tetal Wattry

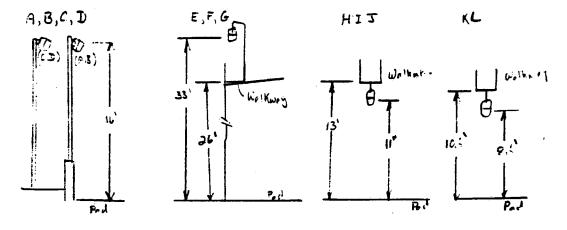
= 3,000

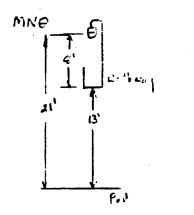
1	<u>i 9</u>	r	15

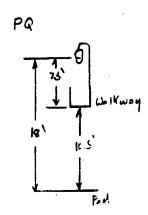
Types	HJV I	Mererry Vaper		
1	I	Incad scent		

Location	Type Lighting	Watters	HI. Above The Form Foll
= Sic Concr of Poil	7-10 ~	400	16'
E Niel Corror of Fed	7₹ V	400	16'
C ell SE Corner of Prel	71 ₅ ✓	400	14',
D AT Econor of Post	γ_{\odot}^{\prime}	400	16
E above TX-23	j	200	33
F above The 24-25	τ	200	3 •
6 serve TU 26	1	20 U	3 3 '
to Ground Love I W End Pack	ĵ	200	μ^*
I Grand Love I W End Pad	1	200	μ'
3 Grand Level Between The No	+26 1	206	μ^*
K Green Level Between The 28		5 C.	4.5
L Grave & Level Conter to The 31,30,		3 U U	€,5 }
M Olen The 13 + 22	Ī	00°	·8.5 ¹
N above The 15 + 20	I	216	۱, ع
C above The 17 + 18	Į	000	الد
F above The 33 +34	7.15 V	400	الج
Q above This 30 + 37	J	a co	18'
- dbpAC 14.0 -			181
Level of Illumination as Tot	ul Watts =	4400	•

Elevation Sketches







Tank Form#1-2 Lighting

sale 1"=151

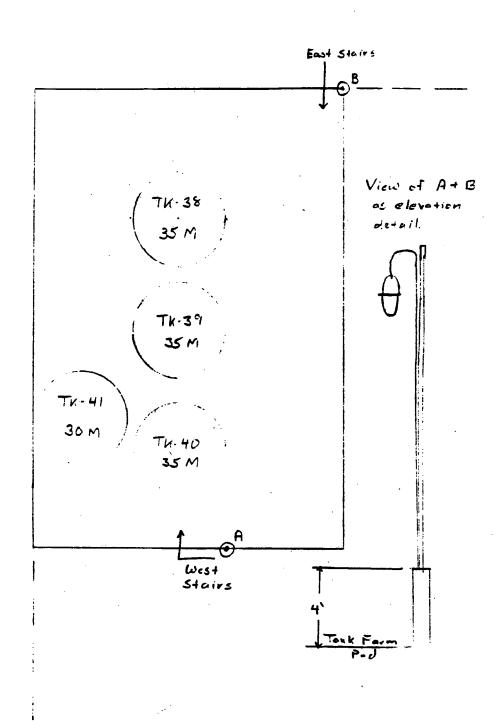
CI THIAS CN THIAS CN TO N BA TV: 13 19M E 10 10 Ti. 23 TV. -TUZI (Tell) IC A. 125 . 71:24 1914 THIS ENTER TK-25 TX: 19 19.09 TK-16 10 45 ICM O TK-18 TK-17 IOM 19M IOM (Took Fair: #4) The 25 K The 29 5 M. TV:309 5M 77.3 Tk-33 T2-33 SM 5M 5 M OQ. TK-34 TV-37 THE 74.36 SM 5 M. SM SA

FC

FJ

Tank Form #5 Lighting

scale 1"=15"



Type; HoV = Menuny Vape.

Lights	Location	Type Lighting	Wattege	HI. Abov. Tank Farm Pal
AB	Next to East Stairs Next to West Stairs	76V 75V	400	16.5 Ft.
Level	of Illumination as Te	stol Watts =	800	

XI. <u>Closure Plan and Closure Cost Estimate</u>

As discussed in the meeting with NUDEP Hazardous Waste Engineering staff personnel on November 26, 1986 and as noted in other sections of this response, the bulk and drum storage hazardous waste inventory has been minimized extensively from the original plan totals. The bulk liquid for incineration cannot exceed 27,583 gallons and the waste drum storage area currently contains less than 200 drums of which less than 100 are designated hazardous.

In regard to decontamination of the drum storage area, we have submitted a soil decontamination plan as a portion of the Part B. The drum storage area is protected by an 8" berm and the drums rest on eight (8) inches of concrete overlaid with five (5) inches of asphalt and there is no evidence of contamination at the present time. Monitoring wells surrounding the work area indicate that the site is currently clean.

The original Closure Plan section, 7:26-9.8(e)3 (Decontamination) has been rewritten to clarify the decontamination procedure and is enclosed. As stated in the November 26 meeting we feel that rinse waters at the completion of this procedure will be non-hazardous. The D001 wastes at CPS can be rinsed with water soluble solvents which in turn can be rinsed into the waste fuel at such levels to render the previous storage area non-hazardous. Similarly the D002 material and residue can be rinsed and neutralized in such a manner that the neutral liquids are non-hazardous. The F002 material is returned to the customer after recovery and there is no hazardous residue from the process or the rinsing into the product mix.

At your request, we are resubmitting the closure cost estimate using the worst case condition, assuming all disposal, treatment, labor, etc. to be handled by outside personnel, and that all drum wastes must be incinerated rather than landfilled. Also as requested at the staff meeting on November 26, we are submitting two worst cast estimates — one based on the original drum and bulk estimates and another on the lower current actual figures.

Comments on our responses to Section XI of your November 6, 1986 TND letter, which form the basis of our estimates are as follows:

- a. <u>Labor Costs</u>. Figures from NJD of L have been obtained and were employed as requested.
- b. <u>Transportation</u>. Since subheading D. states that the drums must be incinerated in New Jersey, we have designated Rollins at Bridgeport (distance 80 miles) as the site.

For bulk incineration we would continue to use SRS at Linden (distance 15 miles) at the current bulk liquid waste fuel cost. Of the total bulk storage, only the waste fuel would be a candidate for disposal. The valuable manifested material for recovery would be returned to the customer, as it is not the property of CPS.

c. Equipment and Supplies.

1. No special equipment except that which is already on hand is anticipated. In the worst case scenario the existing equipment (pumps) would have to be operated by outside laborers.

2. No vacuum trucks are anticipated. A rental forkfilt for drum loading is included, although there are currently a number of forklifts on hand.

d. <u>Disposal/Removal</u>.

- 1. For drum incineration in New Jersey, Rollins would appear to be the current choice. Your \$384.00 per drum figure is stated to include transportation.
- 2. Tanks 4, 5, 6, 13, 14, 39, and R-3 contain (or contained) valuable materials which would of necessity be returned to the customer, not to a disposal site. As stated in the text and in the amended Part A, Tanks 4, 5, and 6 have been decontaminated and are no longer in hazardous waste service.

Tanks 16, 18, 30, 32, and 311 contain (or contained) material which is designated as waste fuel (D-001). Of these, Tank 16 has been removed from hazardous waste service with proper decontamination procedures.

Tank 310 has not been a hazardous waste tank and should not have been included in the summary.

As noted, we will not include on site treatment in the closure estimate.

3. The six (6) processing vessels contain proprietary materials of value which would never be treated as disposal waste. The decontamination procedure would be the same as for DOO1 bulk tanks and could be performed with water soluble solvents which are on site using outside labor, if required.

No salvage value of wastes or equipment is included in the estimate, nor is any generated hazardous waste assumed to have an economic value. No specialized activities are involved which could not be performed by qualified personnel under minimal technical supervision. All decontamination costs incurred during closure are included.

e. Additional Closure Costs.

- 1. Estimates on sampling and analysis by a New Jersey certified laboratory are included.
- 2. Estimated costs for an Independent Professional Engineers certification are documented and listed separately.
 - 3. A contingency cost of 20% is included.
 - 4. Administrative costs of 10% are also included.

NUAC 7:26-9.8 GENERAL CLOSURE REQUIREMENTS

Background Statement

CPS Chemical Company is primarily a manufacturer of specialty organic chemicals used in water treatment. Some of the still residues generated in the manufacturing operation are classed a hazardous wastes. Thus CPS is a generator of hazardous wastes, only because these materials so generated are ignitable and flash slightly below 140°F (D001).

A secondary activity at CPS is the storage and recovery by distillation of certain solvents and chemicals, all of which have value, as is, and are further enhanced in value by such recovery. In each case the recovered, higher value material is returned to the customer and never discarded or treated as a waste.

CPS is not involved in the disposal of hazardous wastes at the Old Bridge site.

Hazardous wastes which are generated by the manufacturing processes are drummed as produced or stored in bulk tanks. These ignitable (D001) wastes are stored in designated areas for subsequent off-site landfill disposal and/or incineration as waste fuel.

Closure of this part of the facility would occur only if the manufacture of products producing these wastes was discontinued. Closure then would consist of off-site landfill disposal (or incineration, if required) of waste drums, and off-site incineration of bulk waste fuel followed by any necessary clean-up of the designated storage tanks and areas.

The recovery of solvents and chemicals at CPS utilizes excess distillation capacity not currently utilized for our manufacturing operations, which consist primarily of the production of water treatment chemicals and intermediates. Closure of this part of the facility would result only in case of a decision by CPS management to utilize all existing capacity for captive production and to discontinue recovery operations or if such recovery operations become uneconomical.

Closure in either case would consist of processing any remaining recovery materials or transfer of any remaining inventory to some alternate facility as directed by the supplier. All equipment and storage tanks could be easily decontaminated and cleaned to a condition suitable for other uses. The specific cleaning procedures will depend on the nature of the material last stored. The nature of the current designated wastes would permit simple decontamination based on neutralization and rinsing. No hazardous waste would leave the site except by normal designated procedures.

RESPONSE TO SPECIFIC ITEMS IN NUAC 7:26-9.8

7:26-9.8

(e) 1. Closure Description

- i. There is no intention, at the present time, to partially close the facility.
- ii. As stated in the "Background Statement", the principal business of CPS Chemical is the manufacture of chemicals used for Water Treatment. There is no intention to close any portion of the Old Bridge operation at the present time.

2. Waste Inventory

Under normal operating conditions the drum waste for ultimate landfill disposal should not exceed 200 drums. Of this total, less than 100 are designated as hazardous. This total has been reduced from the total of 1,000 in the original Part B 7:26-9.8(e)2 (Waste Inventory) submission. The bulk liquid for incineration should not exceed 27,583 gallons at any one time and will normally be less than 15,000 gallons.

3. <u>Decontamination Steps</u>

- a. <u>Drums</u>. Full drums of solid non-pumpable waste will be landfilled (or incinerated, if required). Drums containing pumpable liquid, if any, will be dedrummed into bulk tanks for incineration. Empty drums, if any, will be decontaminated by authorized rinsing procedures and salvaged as scrap steel. No decontamination of the drum storage area surface should be required, as the drums have been located on 8" concrete covered by 5" of asphalt since before the inception of the plan and monitoring wells show that the site is clean.
- b. <u>Bulk Liquids</u>. Ignitable waste tanks will emptied by transferring the contents to designated approved incineration facilities. All such tanks will be solvent rinsed with a water soluble solvent and the wet solvent made a portion of the bulk incineration load. The small amount of water/solvent solution remaining will not be hazardous.

All other bulk tanks or processing equipment containing recovery crudes will be emptied by returning the contents to suppliers or to such other facilities as may be designated by the suppliers. Final decontamination will result from rinsing or steam cleaning each item of bulk storage or processing equipment in accord with approved procedures. The final rinses will not be hazardous.

4. Final Closure Schedule/Milestone Dates

If at some future time a decision is made to close the facility, the following plan, with milestone target dates would be anticipated.

a. Start (day zero). Discontinue processing operations including receipt of all raw materials and crudes being subjected to recovery process to enhance value.

THE TOTAL AND MANAGEMENT OF A

- b. Drum Disposition (per below, 42 days maximum).
- (1) Maximum three (3) truckloads of solid residues at 1 truckload every two weeks. Total time 6 weeks, (42 days).
- (2) Simultaneous dedrumming of pumpable liquids to bulk storage and decontamination of empty drums. Not to exceed 30 days within above 42 day period.
- (3) Removal of all decontaminated drums to scrap steel yard. Not to exceed 30 days within above 42 day period.
 - c. Bulk Tank/Bulk Processing Equipment (49 days maximum).
- (1) Simultaneous emptying of four (4) tanks containing a maximum of 27,583 gallons (6 x 5,000 gallon tank wagons) of <u>waste fuel</u> for <u>incineration</u> at a rate of two (2) tank wagons per week. Total three (3) weeks or 21 days.
- (2) Simultaneous return to customers or alternate recovery facility of contents of four (4) tanks containing a maximum of 75,000 gallons of recovery crudes for value enhancement. Estimate three (3) 5,000 gallon tank wagons per week, or a maximum of five (5) weeks (49 total days simultaneous with drum removal).
- (3) Processing equipment will be empty and non-operational during the drum and bulk tank emptying operation.
 - d. Decontamination of Bulk Storage and Bulk Processing Equipment (42 additional days)

Steam and/or solvent cleaning and related decontamination of all processing and storage equipment will commence as each piece of equipment is emptied. There is no reason to believe that this final cleaning procedure will consume more than an <u>additional</u> six (6) weeks (42 days) beyond the final removal of bulk liquids.

Thus the total final closure should be accomplished in a maximum of thirteen (13) weeks or 91 days from the start. In summary the milestones are:

42 days - Complete all drum removal.

49 total days - Complete all drums and bulk removal.

91 total days - Complete all decontamination of drum and bulk liquid storage areas and all bulk and processing equipment.

7:26-9.10 FACILITY CLOSURE FINANCIAL REQUIREMENTS

2/22/85 basis

- (e) Closure Cost Estimates
- 1. Prior and Current Estimates Under Worst Case Conditions

,				
a. <u>Drum Incineration</u>				
1,000 drums @ \$384.00/drum Labor to load 12 TL (2 men):		200 drums @ \$384.00/drum Labor to load 3 TL (2 men):	= 5	\$76,800.00
Laborer 48 hrs. x \$20.05/hr				240.60
FL Oper 48 hrs. x \$25.47/hr	•			
FL Rental 12 days @ \$50/day	r = 600.00	FL Rental 3 days @ \$75/day	=	225.00
b. Bulk Liquid Incineration)			
30,000 gallons @ \$0.35/gallo	n = 10,500.00	27,583 gallons @ \$0.35/gallon	=	9,654.05
Transportation: 6 x \$250	= 1,500.00	Transportation: 6 x \$250	=	1,500.00
Labor (2 men):		Labor (2 men):		
48 hrs. x \$20.05/hr.	= 962.40	0 40 hrs. x \$20.05/hr.	=	802.00
c. Bulk Liquid Return to Cu	stomer			
135,000 gallons @ N/C	=	- 75,000 gallons @ N/C	=	
ansportation: 12 x \$500	•	· · · · · · · · · · · · · · · · · · ·	=	3,300.00
11 x \$300	•	· · · · · · · · · · · · · · · · · · ·	=	1,000.00
4 x \$250 Labor (2 men):	= 1,000.00	Labor (2 men):		
216 hrs. x \$20.05/hr.	= 4,330.80	•	_	2,406.00
110 1110 11 420105/1111	4,000.00	220 123. x 420.03/12.		2,400.00
d. <u>Decontamination</u> (pumping	Ù			
Labor (2 men) - 17 tanks/rea with receive		Labor (2 men) - 13 tanks/react with receivers		5
80 hrs. x \$20.05/hr.	= 1,604.00		=	1,283.20
e. Overall Supervision (1 m	an)			
220 hrs. x \$21.55/hr.	= 4,741.00	124 hrs. x \$21.55/hr.	=	2,672.20

1/5/87 Basis

f. Additional Costs

Sampling

150 samples @ \$200 each Independent P.E. Cert. Total Cost Contingency Cost (20%)	=	\$ 30,000.00 20,000.00 \$470,723.16 94,144.63	100 samples @ \$200 each Independent P.E. Cert. Total Cost Contingency Cost (20%)	=	\$ 20,000.00 20,000.00 \$140,188.49 28,037.70
Administrative Cost (10%)	=	47,072.32	Administrative Cost (10%)	=	14,018.85
Total Cost Estimate	=	\$611,940.11	Total Cost Estimate	=	\$182,245. 04

XII. <u>Drainage System</u>

The flow to the NUDEP authorized diversion of the drainage area designated as Prickett's Brook emanates from the wooded area east of the CPS site and from approximately 35 undeveloped acres of land belonging to CPS outside the bermed and sealed process area.

Wehran makes the following response to the 300 cfs discharge value rationale:

"The primary means of calculating the design discharge for Prickett's Brook was "Special Report 38" prepared by Stephen J. Stankowski of the U. S. Geological Survey (1974). This method was specifically developed for use in New Jersey for drainage basins greater than one square mile. The result of that calculation was 300 cfs.

The most precise way to estimate peak discharge is from actual stream flow/rainfall data. Such information is rarely available and impractical to obtain for small watersheds. A common practice, therefore, is to prepare some duplicative calculations to help verify assumptions, input data and resulting discharges. The SCS method and drainage area proportioning served this purpose only.

Since Special Report 38 was specifically developed for use in New Jersey, it was considered most accurate and the result was used in the final backwater computations."

XIII. Plant Security

Although the chainlink fence and drainage ditch does not completely contain the work area, we have demonstrated to your satisfaction and to achieve compliance with the regulations, that the plant is never unattended and does have 24-hour surveillance. It is our understanding that this fulfills the requirements of the Plant Security section under 7:26-9.8(h).

XIV. Cleaning and Rinsing Areas

A description of the cleaning areas is enclosed. The rinsing is done so that any materials that might be hazardous do not get into the MCUA sewer line, and that any such rinse waters which would go into the sewer line meet all requirements of the MCUA. We do continuously analyze all plant receipts, shipments and processes and are well aware of the discharge parameters that must be achieved.

DESCRIPTION OF CLEANING/RINSING AREAS AND PROCEDURES

All designated cleaning areas on Drawing No. X-100-1 are reinforced concrete surfaces equipped with concrete trench drains. The drains flow to concrete sumps which must be manually operated before discharge to the central waste water collection area.

No hazardous wastes are allowed to enter these trench drains. In the event of a spill or leak, the contents of the drain and sump can be pumped back to the original source or to an alternate source.

The five (5) designated areas are used for truck rinsing and for drum rinsing.

In the case of tank trucks containing materials designated as hazardous wastes, the contents are rinsed back into the appropriate storage tanks with the appropriate water soluble solvent, followed by a water rinse as required. Any water from the procedure which ultimately finds its way into the collection system and the outfall to the POTW collection and distribution line is non-hazardous.

The procedure for rinsing and emptying hazardous waste drums is similar to the procedure for rinsing and cleaning hazardous waste tank trucks. Only drums containing pumpable liquids are rinsed. All drums with solids are directed to an authorized landfill.

All hazardous waste liquids in drums are pumped to the appropriate waste fuel tanks and triple rinsed with a water soluble solvent followed by a water rinse until the drum is clean.

As in the case of the tank trucks, spills are contained in the appropriate sumps and no material is allowed to enter the outfall which would be in violation of existing NJPDES/SIU permit parameters.

CPS is regularly monitored for total flow, Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS) and Chlorine Demand (CD). In addition, a 24 hour per day, 7 day per week continuous recording LEL meter is present at all times in the outfall to the POTW collection line. Copies of these LEL strip charts are transmitted on a regular basis to the Middlesex County Utilities Authority.

Shell Thickness Details XV.

As per the attached ultrasonic testing data for:

Tanks 13, 14, 18 30, 32 39

311

R-3

Effective Tank Life Table

TANK NR.	NEW TANK SHELL THICKNESS (IN.)	ULITASONIC SHELL THICKNESS (IN.)	CORROSION RATE (IN/YR)	PROJECTED SERVICE LIFE
13	.25	.2527	<.001	>50
14	.25	.2426	<.001	>50
18	.25	.2325	<.002	>50
30	.25	.2325	<.002	>50
32	.25	.2325	<.002	>50
39	.25	.2528	<.001	>50
311	.25	.2325	<.002	>50
R-3	.375	.26375	.01	>10



ULTRASONIC THICKNESS GAUGING/CORROSION SURVEY

USTOMER C. P.S. CHENICAL SPORT NO. TANK # 13

DWG. NO. PAGE OF

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BRANCH RADIOGRAPHIC LABORATORIES, INC.

ULTRASONIC THICKNESS GAUGING/CORROSION SURVEY

ISTOMER C. P. S. CHEMICAL

DWG. NO. PAGE OF

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ULTRASONIC THICKNESS GAUGING/CORROSION SURVEY

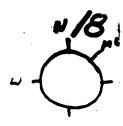
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Date of 12/12/86 per Branch Rediographics



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ULTRASONIC THICKNESS GAUGING/CORROSION SURVEY

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ULTRASONIC THICKNESS GAUGING/CORROSION SURVEY

STOMER C. P.S. CHEMICAL DRINO. TANK #32

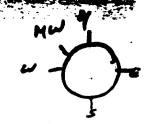
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ULTRASONIC THICKNESS GAUGING/CORROSION SURVEY

ISTOMER C.P.S. CHEMICAL HORTNO. TANK #39

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ULTRASONIC THICKNESS GAUGING/CORROSION SURVEY

ISTOKER C. P.S. CHEMICAL FORT NO. TOUR 211

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ULTRASONIC THICKNESS GAUGING/CORROSION SURVEY

STOUR C. P.S. CHEMICAL DAT NO. REACTOR #3

DWG. NO. PAGE OF

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XVI. <u>Secondary Containment Requirements</u>

(a) Container Storage

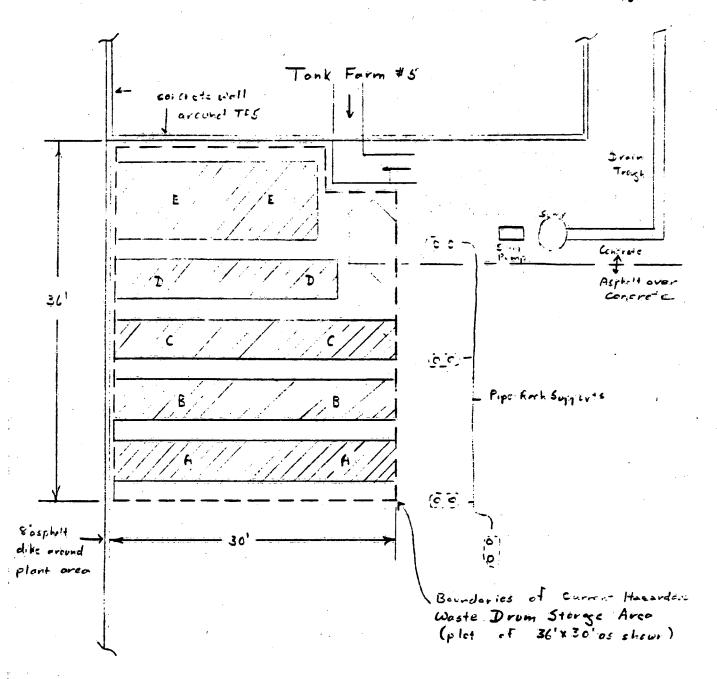
As discussed at the November 26, 1986 meeting and as stated in this response, the drum storage area now contains less than 200 drums of which less than 100 are hazardous. The contents of all drums are solid or semi-solid. The drum area base is eight (8) inches of concrete overlayed with five (5) inches of asphalt. This has been in place since 1979.

There is no possibility of the contents of these drums leaving this storage area in its present form and the construction of a berm around the area would be a deterrent to fork lift movement and increase the risk of accident or injury. Therefore, we respectfully request reconsideration of the recommendation made in XVI, a.

A sealed drawing showing the present arrangement of the drums is attached.

Hazardous Waste Drum Storage Area Details

scole 1"=10"



Hazardous Waste Drum Area- Service of Rows

A Solid Monomer Heels

B Solid Monomer Heels

C Liquid Lab Wasted (to be dedrummed into waste fuel)

D Special Over-size Recovery Drums

E Special Over-size Recovery Drums

XVI b.

Tank Farm #1 - 2

1. Capacity of secondary containment = 186,655 gal.Calculation as: 105'8" x 59' x 5'6" x 7.5 gal/cu. ft. = 257,175 gal.Minus Bases of Vessel as: 10 per 126" dia. x 5'6" x 7.5 gal. = 35,718 gal. 4 per 12' dia. x 5'6" x 7.5 gal. = 18,861 gal. 9 per 96" dia. x 5'6" x 7.5 gal. 5,940 gal. 2 as horizontal (1/2 of each capacity) = 10,000 gal. Capacity = 186,655 gal.Total Volume of Storage

Total Volume of Storage = 241,000 gal. = 24,100 gal.Largest Storage Tank = 19,000 gal.

2. Dike Wall Description

*Refer to Drawing X-112-1A as previously submitted (wall is concrete and block of 5'6" height by an 8" thickness). (5'6" internal wall x 3'11" external wall height.)

3. Spill and Precipitate Removal

All spill and precipitate liquids are removed from the pad using a manually operated sump pump. Water, precipitate, wastes are transferred to water treatment, and organic wastes are transferred to a holding tank for disposal or recovery.

- 4. Sump Capacity = 1,026 gal. total 200 gal. as pit only
- 5. Sloping of Floor

Refer to Drawing X-112-1A as previously submitted.

*Tank Farm #1 - 2 is the area on the right side of the referenced Drawing (X-112-1A).

XVI b

Tank Farm #5

1. Capacity of Secondary Containment

= 81,535 gal.

Calculation as:

69'4" x 48'1" x 4'0" x 7.5 gal./cu. ft.

= 100,008 gal.

Minus Base of Tanks as:

4 tanks x 168" dia. x 4"

= 18,472 gal.

Capaciity

= 81,535 gal.

Total Volume of Storage

= 135,000 gal.

10%

= 13,500 gal.

Largest Storage Tank

= 35,000 gal.

2. Dike Wall Description

*Refer to Drawing Q-111-1 as previously submitted (wall is concrete and block of 4' height by an 8" thickness).

3. Spill and Precipitate Removal

All spill and precipitate liquids are removed from the pad using a sump pump. Water, precipitate, wastes are transferred to waste treatment, and organic wastes are transferred to a holding tank for disposal or recovery.

4. Sump Capacity:

1,280 gal. total

200 gal. as pit only

5. Sloping of Floor

*Refer to Drawing Q-111-1 as previously submitted.

*Drawing Q-111-1 shows Tank Farm #5.

XVI (b)

Main Process Pad

1. Capacity of secondary containment

= 21,000 gal.

Calculation as:

$$[(60' \times 60' \times 8") + (30' \times 20' \times 8")] \times 7.5$$
 = 21,000 gal.

Total volume of storage

105,000 gal.

10%

= 10,500 gal.

Largest storage vessel (R-3)

= 20,000 gal.

2. Dike Walls

Curb is reinforced concrete (8").

3. Spill removal

All fluid on the pad, when released, enters a skimming sump prior to the final effluent measuring sump. In the event of a spill, the sump may be blocked off to prevent entry to the POTW collection system. A continuous recording IEL meter is in place in the final outfall to detect the presence of any flammable substances at extremely low levels.

4. Sump Capacity:

500 gallons

5. Sloping of Floor

Entire concrete pad discharges into gravity concrete drains and ultimately to outfall sumps.